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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,206	07/09/2002	Luc Dewaele	DEW A3001/JEK	1069
23364	7590	12/04/2003	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			VERBITSKY, GAIL KAPLAN	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/088,206

Applicant(s)

DEWAELE, LUC

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22,23,25-27 and 31 is/are allowed.
- 6) ☒ Claim(s) 13-21,24,28 and 29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-18, 21, 28-29 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita (U.S. 5318077) in view of Cramer et al. (U.S. 6000844) [hereinafter Cramer].

Yamashita states that there is a need to monitor a rapier band's (object) abrasion (wear) by using electromagnetic energy sensors and deducing the wear data from the measurements. It is inherent, that there is a sensor (first/ second) associated with the rapier band, and thus with all the elements of the rapier band (guide, wheel, etc.). Yamashita states that the sensors' positions can be changed.

Yamashita does not teach the particular wear monitoring device using a thermal (temperature) energy sensor to determine the wear, with the remaining limitations of claims 13-18, 21, 28-29.

Cramer teaches to obtain a thickness defect (wear) data of an object by directly measuring its temperature and making a thermal image of its portions/ elements. Cramer discloses a temperature monitor/ imager (sensor) capable of sensing and video displaying temperature/ thermal image and thus, wear (thickness) of all the portions of the surface of the object. Cramer also teaches to compare data to a previous data and

an analysis of the data (col. 9, lines 19-36). Inherently, Cramer is considered to be teaching an analyzer and a comparison device (an input unit for supplying a comparison value). It is also inherent, that, if said imager is applied to an object having different portions (components/ elements), all the portions will be monitored. It is also inherent, that, being a non contact temperature monitoring device, the device of Cramer can measure temperature at any one of selected components. It is also inherent, that the device of Cramer can measure temperature of the surface of interest while the surface is in an operational mode. Furthermore, it is inherent, that the temperature of the surface of interest is measured directly when the device is aimed directly onto the surface of interest.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the wear sensing device disclosed by Yamashita, with the wear (defects) sensing device, as taught by Cramer, because both of them are wear (defects) sensing devices using an electromagnetic energy, which will perform the same function, of sensing the defects of the object of interest, if one is replaced with the other.

With respect to claims 13-18: the method steps will be met during the normal operation of the device stated above.

3. Claims 13, 16, 19-21, 24 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita in view of Schmidt et al. (U.S. 5352038) [hereinafter Schmidt].

Yamashita states that there is a need to monitor a rapier band's (object) abrasion (wear) by using electromagnetic energy sensors and deducing the wear data from the measurements. It is inherent, that there is a sensor (first/ second) associated with the rapier band, and thus with all the elements of the rapier band (guide, wheel, etc.). Yamashita states that the sensors' positions can be changed.

Yamashita does not teach using a thermal (temperature) energy sensor to determine the wear, an analyzer/ comparison device and a controller, and determining a temperature differential between a first and a second temperature, as stated in claims 13, 16, 19-21, 24.

Schmidt discloses a defect (wear) sensing device to measure a surface temperature of a surface 4 of a moving object to determine its defects, the device comprising a temperature sensor 1, a comparison device/ analyzer 7 to compare a differential signal between a measured (first site) temperature and a standard (second site) temperature. The analyzer is connected to a controller 9.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the wear sensing device disclosed by Yamashita, with the wear (defects) sensing device, as taught by Schmidt, because both of them are direct/ indirect wear (defects) sensing devices using an electromagnetic energy, which will perform the same function, of sensing the defects of the moving object, if one is replaced with the other.

With respect to claims 13, 16, 19: the method steps will be met during the normal operation of the device stated above.

***Allowable Subject Matter***

4. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22-23, 25-27, 31 are allowed.

***Response to Arguments***

5. Applicant's arguments with respect to claim 13-18, 21, 24, 28-29 have been considered but are moot in view of the new ground(s) of rejection necessitated by the present amendment.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2859

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record and not relied upon considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Verbitsky who can be reached at (703) 306-5473 Monday through Friday 7:30 to 4:00 ET.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-5473.

GKV

  
Gail Verbitsky, Patent Examiner,  
TC 2800

06 November 2003